

**REMARKS**

This Amendment is filed in response to the Office Action mailed Sept. 9<sup>th</sup>, 2005.  
All objections and rejections are respectfully traversed.

Claims 1-27 are in the case.

Claims 1, 2, and 3 have been amended to better claim the invention.

Claims 26-27 have been added.

***Claim Rejections - 35 U.S.C. §102***

At paragraphs 2-3 of the Office Action, claims 1-3 and 9-15 were rejected under 35 U.S.C. §102(b) as obvious in view of Gross et al., U.S. Patent No. 6,128,734, issued on Oct. 3<sup>rd</sup>, 2000 (hereinafter Gross).

Applicant's claim 1, representative in part of the other rejected claims, sets forth:

1. A method of transferring ownership of a volume comprising a plurality of disks from a source file server to a destination file server comprising the steps of:

***changing ownership information stored in each of the plurality of disks to an un-owned state*** from a state of source file server ownership;  
and

***changing ownership information stored in each of the plurality of disks to a state of destination file server ownership*** from the un-owned state.

Gross discloses a technique for upgrading an old operating system to a new operating system on a computer system while the computer system continues to function. *See* col. 2, lines 25-28. As part of this technique, the computer changes its boot device from

a first boot device (first volume), containing the old operating system to a second boot device (second volume), containing the new operating system. *See* col. 2, lines 28-39. The UNIX command “vgexport” is executed to remove reference to the first volume in a single special volume management file called “/etc/lvmtab” on the computer system. *See* col. 9, lines 50-61. Information on the physical volume is not modified. *See* col. 9, lines 55-57 and 60-61 (stating “[t]he volume group information and data is untouched on the physical volume”). Thereafter, the UNIX command “vgimport” is executed to add a reference to the second volume in the “/etc/lvmtab” file. *See* col. 9, lines 50-54 and col. 10, lines 1-13. Again, this command does not modify information on the physical volume. *See* col. 10, lines 11-13

The Applicant respectfully urges that Gross is silent concerning the Applicant’s claimed “*changing ownership information stored in each of the plurality of disks to an un-owned state*” and “*changing ownership information stored in each of the plurality of disks to a state of destination file server ownership.*”

Gross teaches away from the Applicant’s invention, directing one to only modify a single special volume management file (“/etc/lvmtab”) using “vgexport” and “vgimport” commands. Indeed Gross explicitly states “[t]he volume group information and data is untouched on the physical volume.” In sharp contrast the Applicant claims “*changing ownership information stored on each of the plurality of disks*” to un-owned states and owned states. By storing ownership information in each disk, and changing this information, the Applicant is able to achieve greater system flexibility and reliability than a system built according to Gross.

Further, the Applicant respectfully suggests that the Examiner’s statement at page 5 that claims 10-15 are substantially the same as claims 1-3 is incorrect. Such claims

contain additional features that are also completely absent from Gross. For example, claims 14 and 15 recite a “*predetermined sector of the disk*”, and a “*changing small computer system interface level 3 reservation of the disk*.” The Applicant respectfully requests examination of these features.

In summary, the Applicant respectfully urges that Gross is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant’s claimed novel “*changing ownership information stored in each of the plurality of disks to an un-owned state*” and “*changing ownership information stored in each of the plurality of disks to a state of destination file server ownership*.”

#### ***Claim Rejections of Claims 4-7 Under 35 U.S.C. §103***

At paragraphs 4-5 of the Office Action, claims 4-7 were rejected under 35 U.S.C. §103(a) as obvious in light of Gross in view of Matsunami, U.S. Publication No. 2002/0099914, published on July 25<sup>th</sup>, 2002 (hereinafter Matsunami).

The Applicant notes Matsunami was filed on Feb. 28, 2001, approximately 11 month before the Applicant’s filing date. While the Applicant does not admit Matsunami has actual prior art status, even assuming arguendo Matsunami is prior art, the reference would make not obvious the Applicant’s claims as explained below.

#### ***Reliance on Inherency***

The Applicant respectfully asserts that the Examiner’s reliance on “inherency” to show numerous aspects of the Applicant’s claims is improper. The Examiner appears to maintain that since Gross and Matsunami discuss a Logical Volume Manager (LVM), a

wide variety of UNIX commands, and the details of their operation, are somehow inherent to the references, though the commands are never mentioned therein. Specifically, the Examiner repeatedly alleges “vgremove” and “vgcreate” commands are inherent to the references, and these commands allegedly make obvious the current claims.

To be considered an inherent feature of a prior art reference, a feature must be clearly necessary, not merely useful or probable. MPEP Section §2112(IV) directs:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)... "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

It is improper to consider the UNIX commands “vgremove” and “vgcreate” inherent to the cited references since they are not a necessary part of these references. Indeed, there is no suggestion that the functionality of the commands is even applicable to the cited references. Accordingly, the Applicant respectfully requests that the Examiner reconsider this rejection.

*Reliance on Ordinary Skill*

Further, the Examiner appears to rely on “ordinary skill” in the art, without citation to references, in discussion of UNIX “vgremove” and “vgcreate” commands that allegedly make obvious the current claims.

MPEP §2144.03 titled “Reliance on Common Knowledge in the Art or ‘Well Known’ Prior Art,” states in subsection C (emphasis added):

It is **never** appropriate to rely solely on “common knowledge” in the art without evidentiary support in the record, as the principle evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 (“The Board **cannot simply reach conclusions based on its own understanding or experience** – or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.”).

A copy of the highly relevant *Zurko* case has been attached to this Amendment to assist the Examiner.

Furthermore, MPEP §2144.03 provides in subsection D:

***If Applicant Challenges the Factual Assertion as Not Properly Officially Noticed or not Properly Based Upon Common Knowledge the Examiner Must Support the Findings With Adequate Evidence...*** If applicant adequately traverses the examiner’s assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained.

The Applicant traverses the Examiner’s statements, and respectfully requests documentary evidence. The discussion of “vgremove” and “vgcreate” commands appears to be based solely upon the Examiner’s own understanding and experience. According to *Zurko*, this is improper. Without citation to documentary evidence the exact

nature of the rejection is unclear. There are many differing versions of UNIX, and in differing versions commands have differing features. Accordingly, without citation to a specific document the Applicant's ability to respond is unduly limited.

*Reliance on the Prior Art*

The Applicant's claim 4, representative in part of the other rejected claims, sets forth:

4. A method for transferring ownership of a volume having a plurality of disks, the method comprising the steps of:

*sending a first message to a source file server, the message containing a request for transferring ownership of a volume of disks;*  
receiving a response from the source file server;  
if the response contains abort information, aborting the transfer;  
if not, verifying that the volume can be transferred;  
if the volume can be transferred, *sending a second message to the source file server to perform the first part of a transfer process to transfer ownership from the source file server to an un-owned state;*  
receiving a response from the source file server after it performed the first part of the transfer process; and  
in response to the step of receiving, *performing a second part of the transfer process to transfer ownership from the un-owned state to a destination file server.*

Gross discloses the UNIX command "lvremove" that is used to clear (i.e. delete) a volume on a disk. See col. 4, lines 35-40. The "lvremove" command destroys all data in a logical volume as part of the deletion process.

Matsunami discloses a technique for managing storage areas on a storage device shared by multiple servers on a network. See paragraph 0001. A Logical Volume Manager is disclosed that can create new areas or resize areas. See paragraph 0094 and Fig 11.

The Applicant respectfully urges that both reference are silent concerning the Applicant's claimed *"sending a first message to a source file server, the message containing a request for transferring ownership of a volume of disks"* and *"sending a second message to the source file server to perform the first part of a transfer process to transfer ownership from the source file server to an un-owned state"* and *"performing a second part of the transfer process to transfer ownership from the un-owned state to a destination file server."*

While the Applicant claims steps for transferring ownership of a volume, Gross discloses clearing (deleting) a logical volume with a UNIX "lvremove" command. If a logical volume is deleted, all data in the volume is destroyed. Clearly, a deleted volume whose data has been destroyed may not thereafter be transferred in *a transfer process*. Further, Matsunami merely describes allocating and resizing storage areas on disks and is silent concerning transferring ownership in a transfer process.

Accordingly, the Applicant respectfully urges that Gross and Matsunami, taken either singly or in combination, are legally insufficient to make obvious the present claims under 35 U.S.C §103 because of the absence of the Applicant's *"sending a first message to a source file server, the message containing a request for transferring ownership of a volume of disks"* and *"sending a second message to the source file server to perform the first part of a transfer process to transfer ownership from the source file server to an un-owned state"* and *"performing a second part of the transfer process to transfer ownership from the un-owned state to a destination file server."*

***Claim Rejections of Claims 16-25 Under 35 U.S.C. §103***

At paragraphs 6 of the Office Action, claims 16-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matsunami in view of Delaney et al, U.S. Publication No. 2003/0097611, published on May 22<sup>nd</sup>, 2003 (hereinafter Delaney).

The Applicant notes Delaney was filed on Nov 19<sup>th</sup>, 2001, approximately 1 month before the Applicant's filing date. While the Applicant does not admit Delaney has actual prior art status, even assuming arguendo Delaney is prior art, the reference would not make obvious the Applicant's claims as explained below.

In connection with this rejection the Examiner has relied almost exclusively upon the UNIX commands "vgremove" and "vgcreate," that are alleged inherent to the cited prior art of "ordinary skill" in the art. For the reasons discussed above, the Applicant respectfully asserts that it is improper to consider these commands inherent to Matsunami. Further, as discussed above, it is inappropriate to rely on "ordinary skill" in the art to show these specific commands. The discussion of "vgremove" and "vgcreate" commands appears to be based solely upon the Examiner's own understanding and experience. According to *Zurko*, this is improper.

Further, there are many differing versions of UNIX, and in different versions commands may have differing features. Accordingly, without citation to a specific document, the Applicant is unable to appropriately respond to the merits of this rejection without speculating as to the subject matter that allegedly makes these claims obvious.



***Claim Rejections of claim 8 under 35 U.S.C. §103***

At paragraphs 7 of the Office Action, claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Matsunami and Gross and Delaney.

The Applicant's claim 8 sets forth:

8. A method of transferring ownership of a volume having a plurality of disks comprising the steps of:

***writing a first destination log file;  
verifying that the plurality of disks can be transferred;  
writing a first source log file;  
verifying that the volume can be accepted by the destination;  
writing a second destination log file;  
writing a second source log file;  
performing a first part of a transfer process;  
writing a third source log file;  
writing a third destination log file;  
performing a second part of the transfer process; and  
erasing the previously written logs.***

The Applicant respectfully urges that Gross and Matsunami and Delaney are silent concerning the Applicant's claimed "***writing a first destination log file; verifying that the plurality of disks can be transferred; writing a first source log file; verifying that the volume can be accepted by the destination; writing a second destination log file; writing a second source log file; performing a first part of a transfer process; writing a third source log file; writing a third destination log file; performing a second part of the transfer process; and erasing the previously written logs.***"

Gross and Matsunami and Delaney are all silent regarding the Applicant's novel transferring ownership of disks from a source server to a destination server and logging

the corresponding steps. As discussed previously, Gross and Matsunami are both silent concerning transferring ownership of disks from a source server to a destination server. They further contain no mentioning of writing log files. Delaney discloses journaling of changes to file systems and storing a journal to media in general, but lacks teaching of how such journaling could be used in a transfer of ownership of disks.

Accordingly, the Applicant respectfully urges that Gross, Matsunami and Delaney, taken either singly or in combination, are legally insufficient to make obvious the present claims under 35 U.S.C §103 because of the absence of the Applicant's "***writing a first destination log file; verifying that the plurality of disks can be transferred; writing a first source log file; verifying that the volume can be accepted by the destination; writing a second destination log file; writing a second source log file; performing a first part of a transfer process; writing a third source log file; writing a third destination log file; performing a second part of the transfer process; and erasing the previously written logs.***"

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-3078.

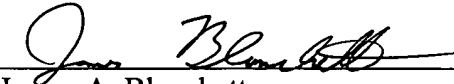
All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account  
No. 03-1237.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James A. Blanchette", is written over a horizontal line.

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